

# Geology Study Guide (Cornell Notes)

1. Rock that forms from molten material is  
..... rock.





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..... rock.

Igneous



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2. Rock that forms from erosion and deposition is ..... rock.





# Geology Study Guide

3. A river eroding rock into sand may help to produce ..... rocks.

River  
(wears-away)  
erodes rock.



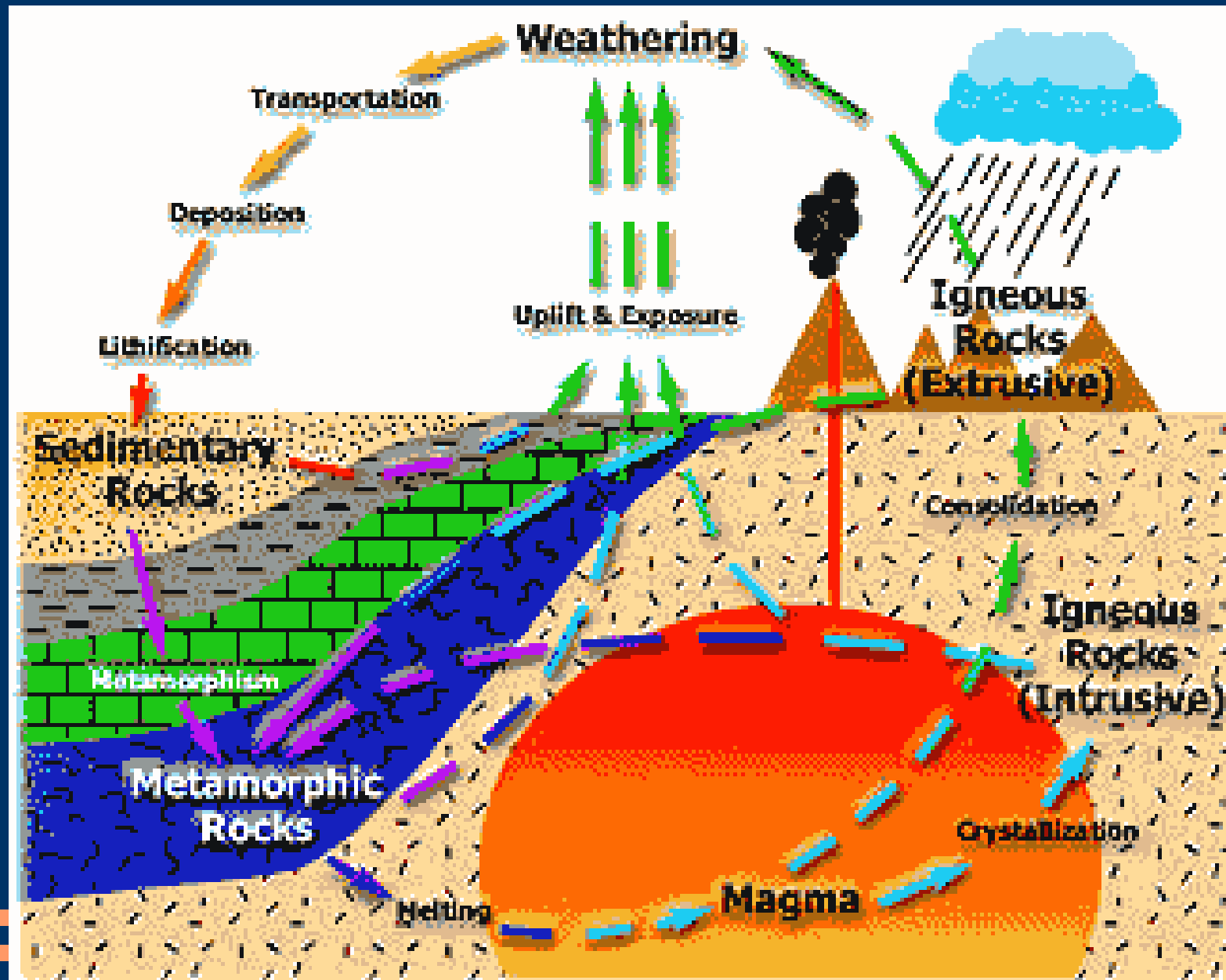


# Geology Study Guide

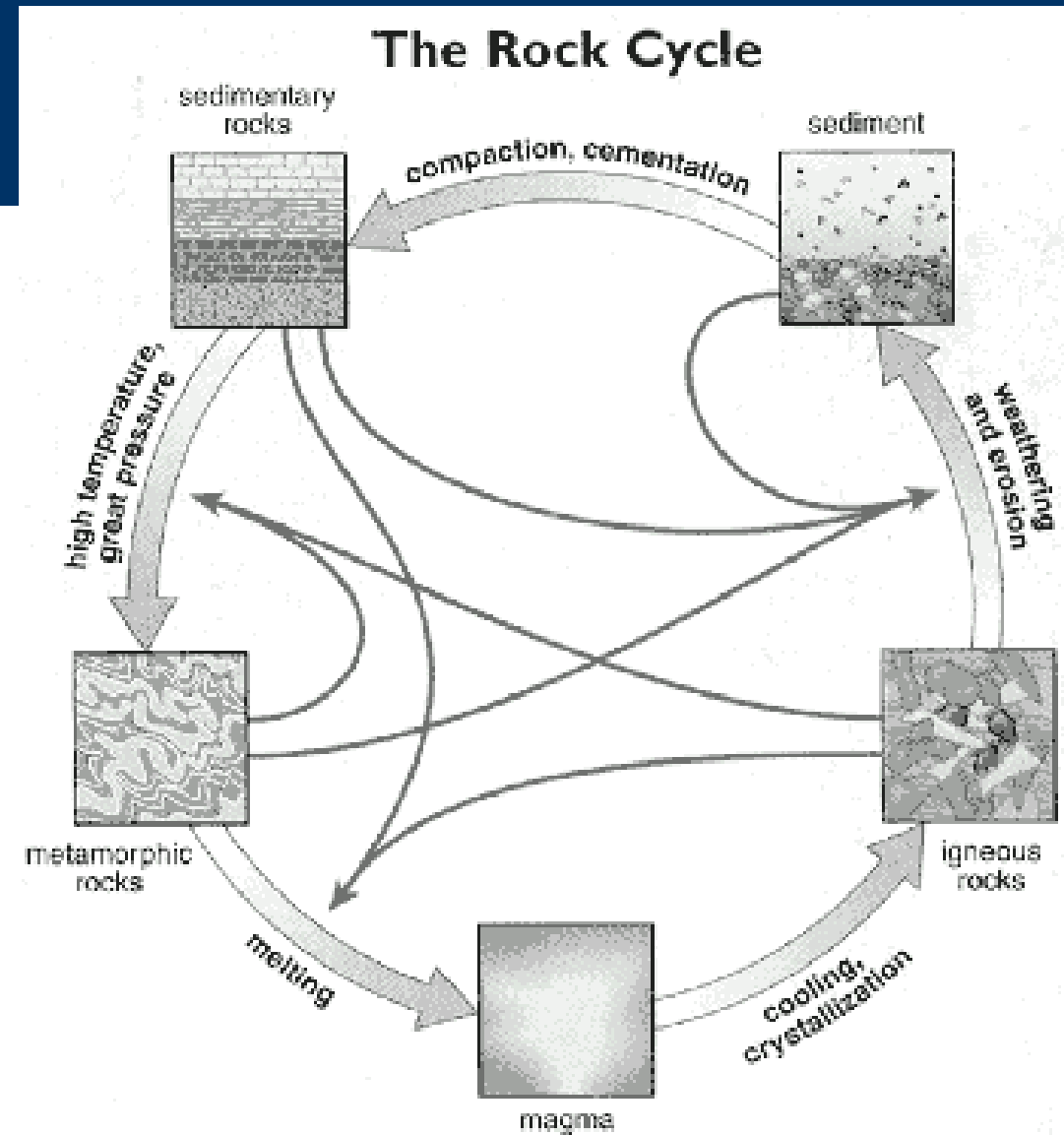
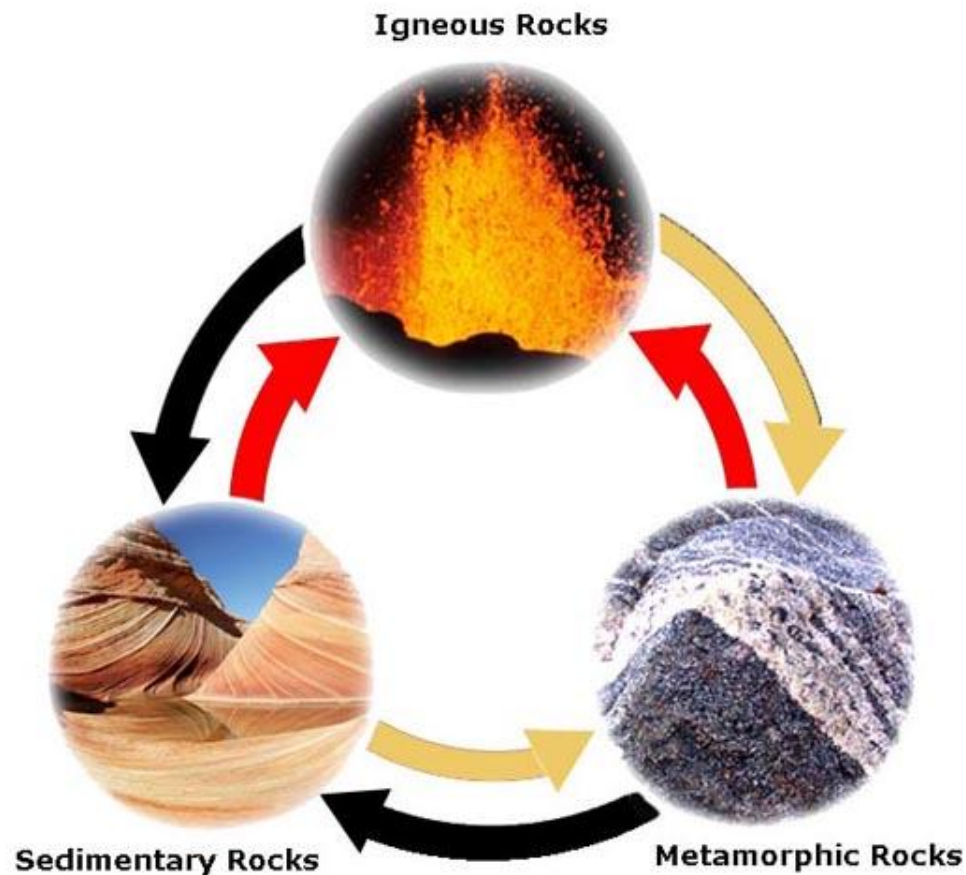
4. When an existing rock is changed by heat and pressure it becomes.....



# 5. Melting, erosion, deposition, heat, and pressure are the process of the...



6. A series of processes on and beneath Earth's surface that slowly changes rocks from one kind to another is the .....



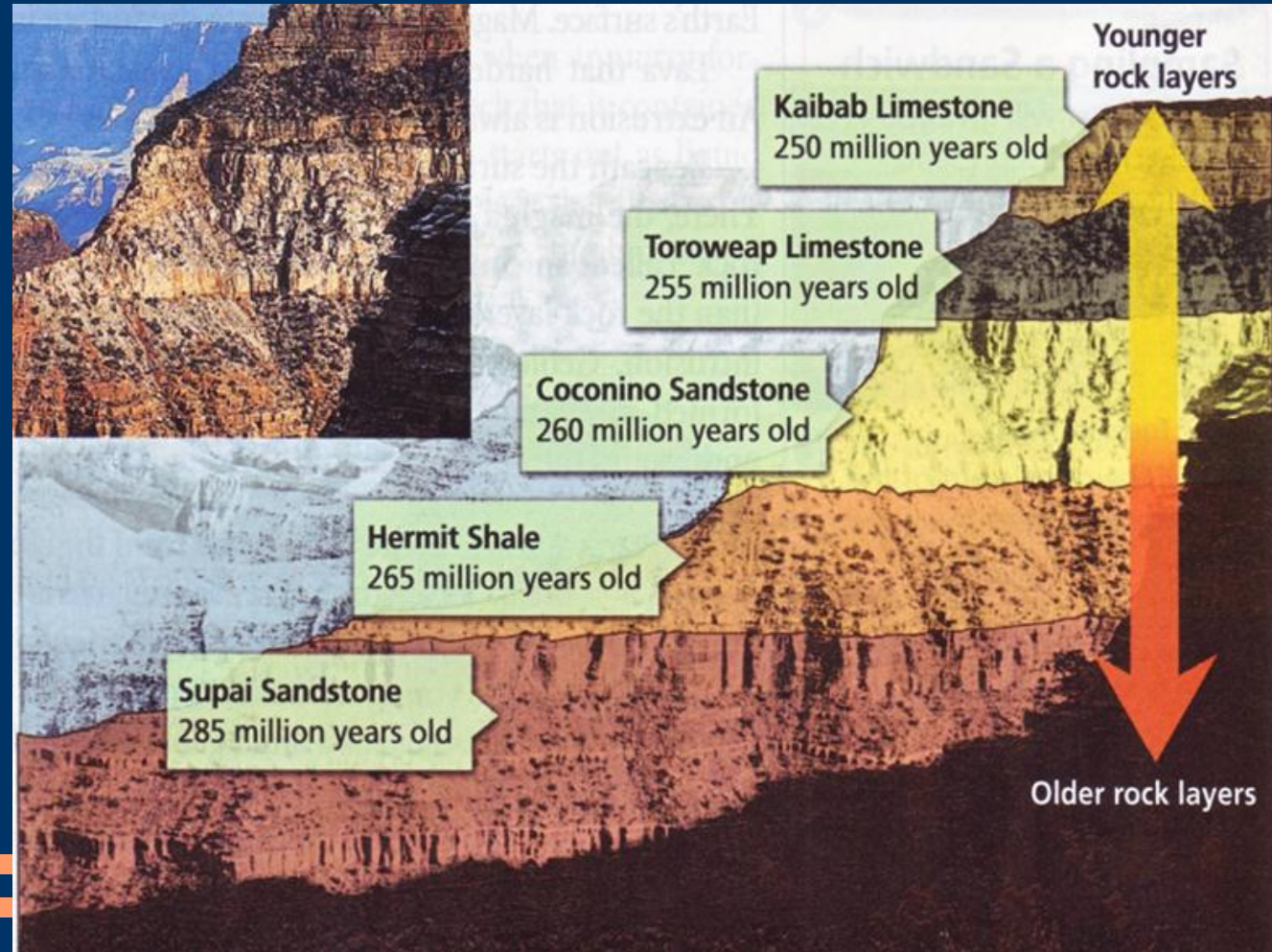


7. A rock's age compared to other rocks is its .....

Absolute age is shown by the ...

Relative age is shown by the ...

Superposition is shown by the ...



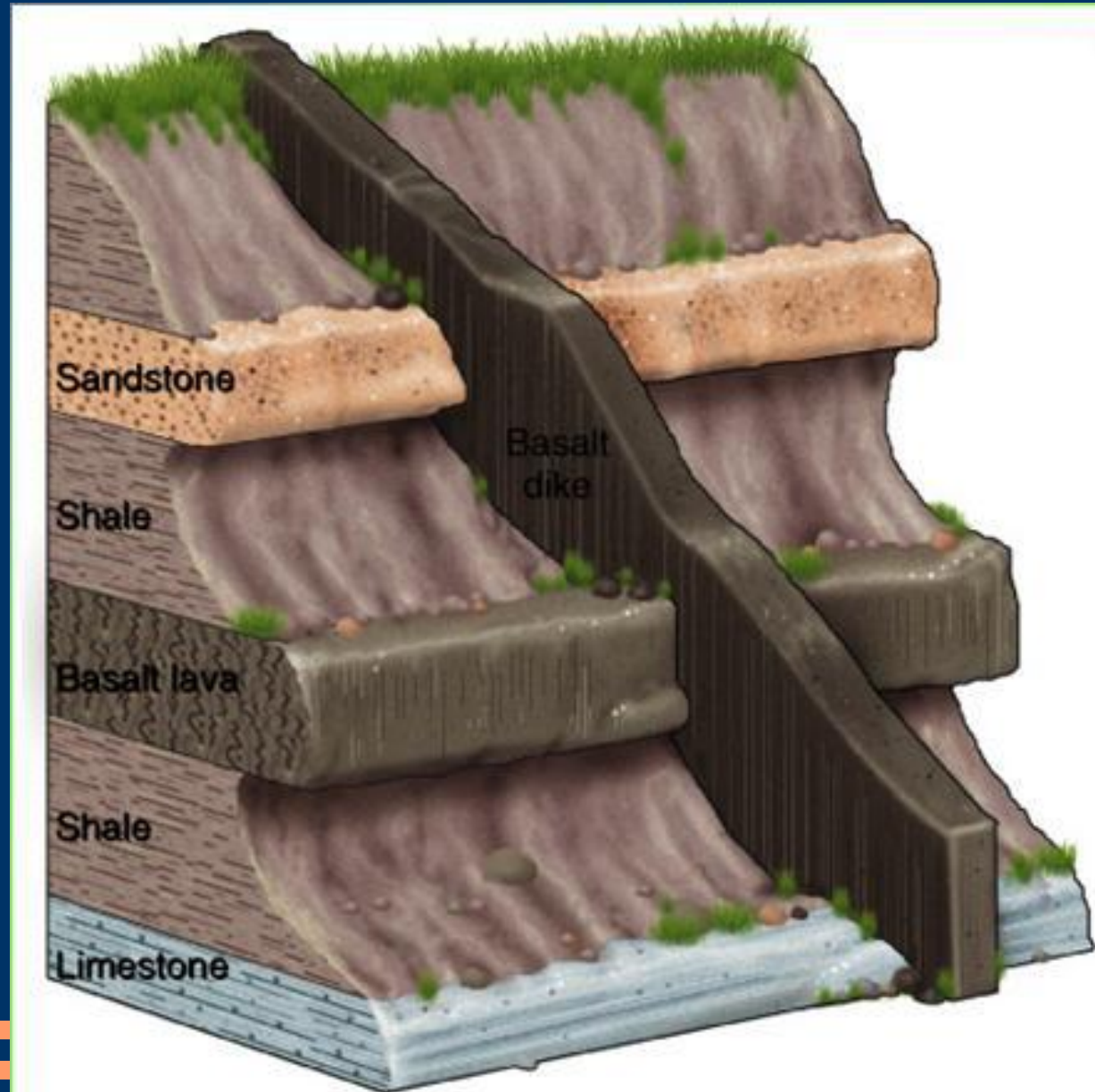


8. The number of years since a rock formed is its ....

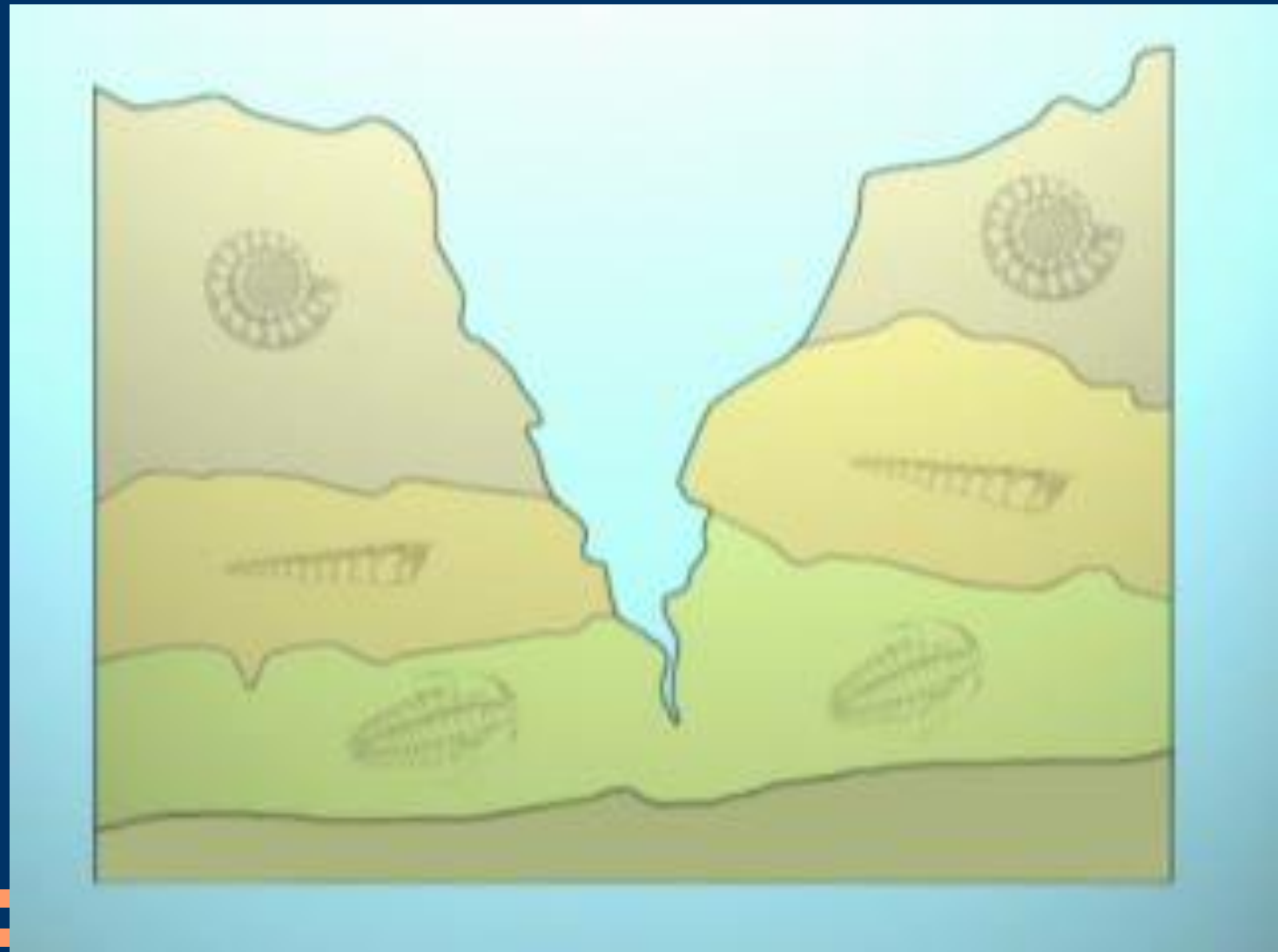
Test Questions:

Which rock is  
Oldest?

Which rock is  
youngest?

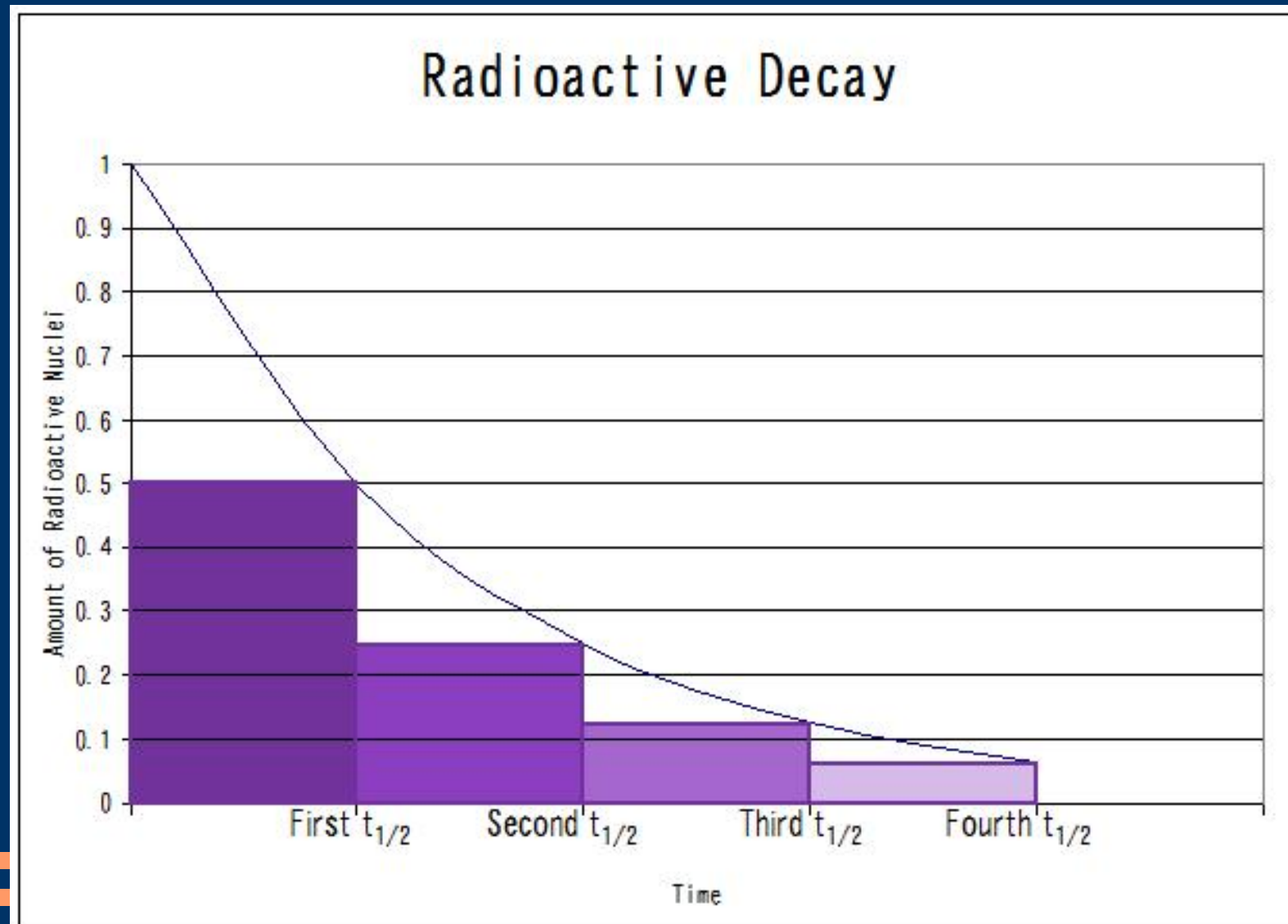


9. Index fossils are useful because they tell the relative ages of the rock layers in which they occur.



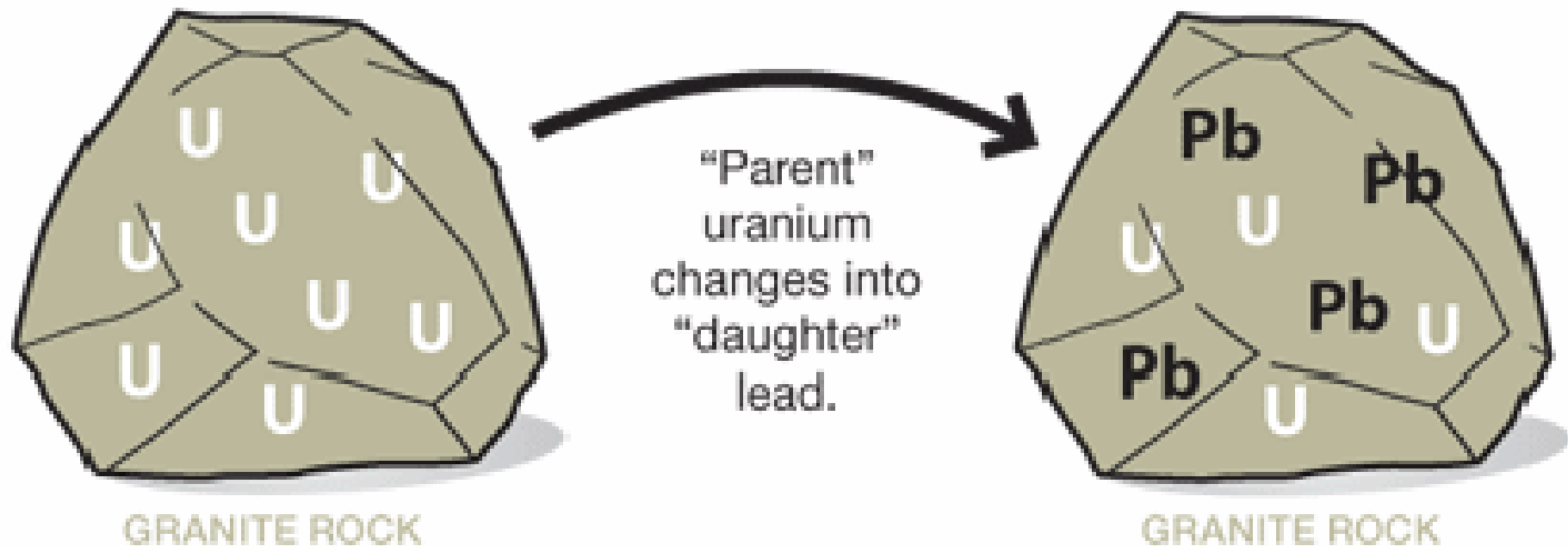


10a. Some elements break down or decay releasing particles and energy in a process called .....



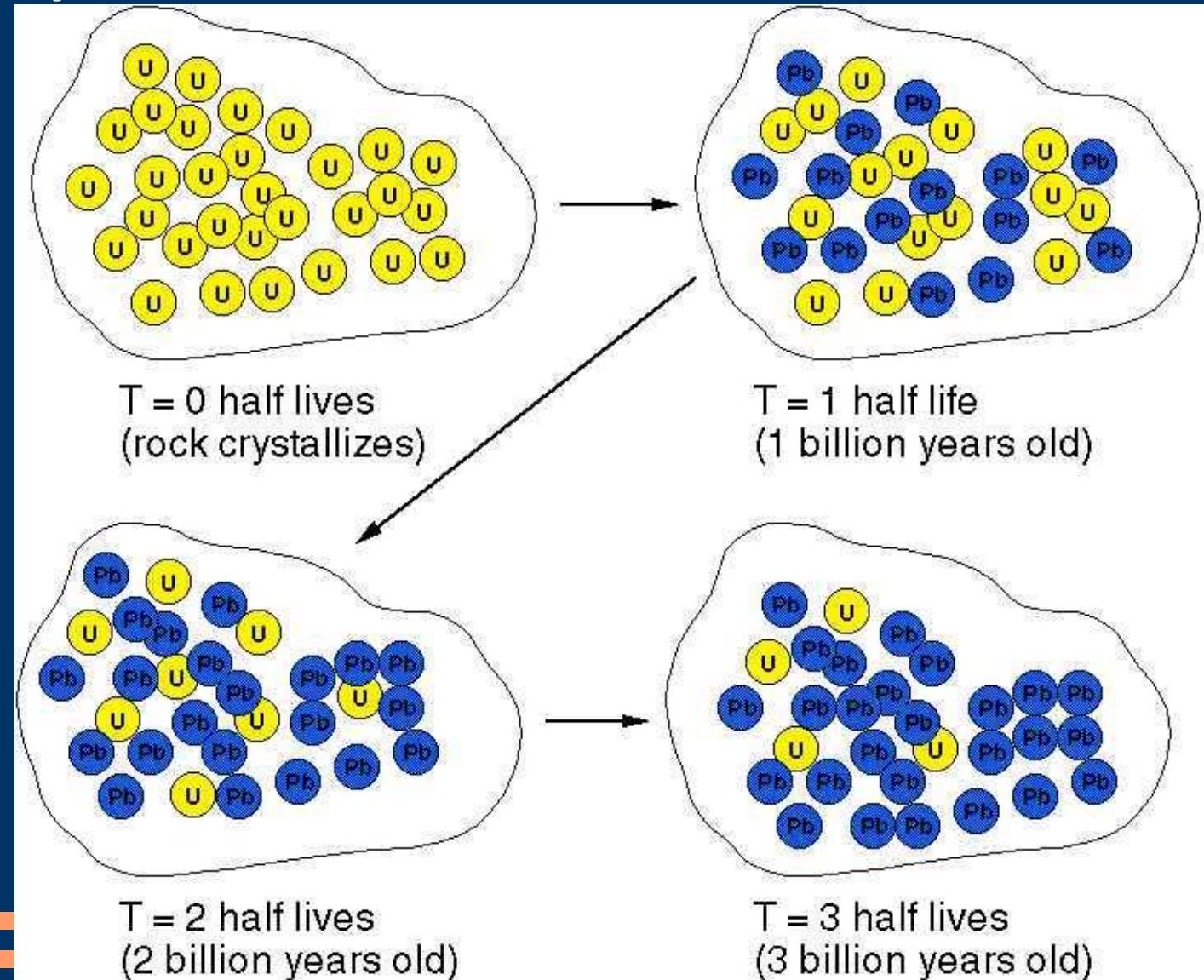
# 10b. During the process of radioactive decay, the atoms of one element breakdown to form atoms of another element.

Unstable atoms, such as uranium (*U*), eventually change into stable atoms, such as lead (*Pb*). The original version is called a parent atom (or isotope), and the new version is called a daughter atom.

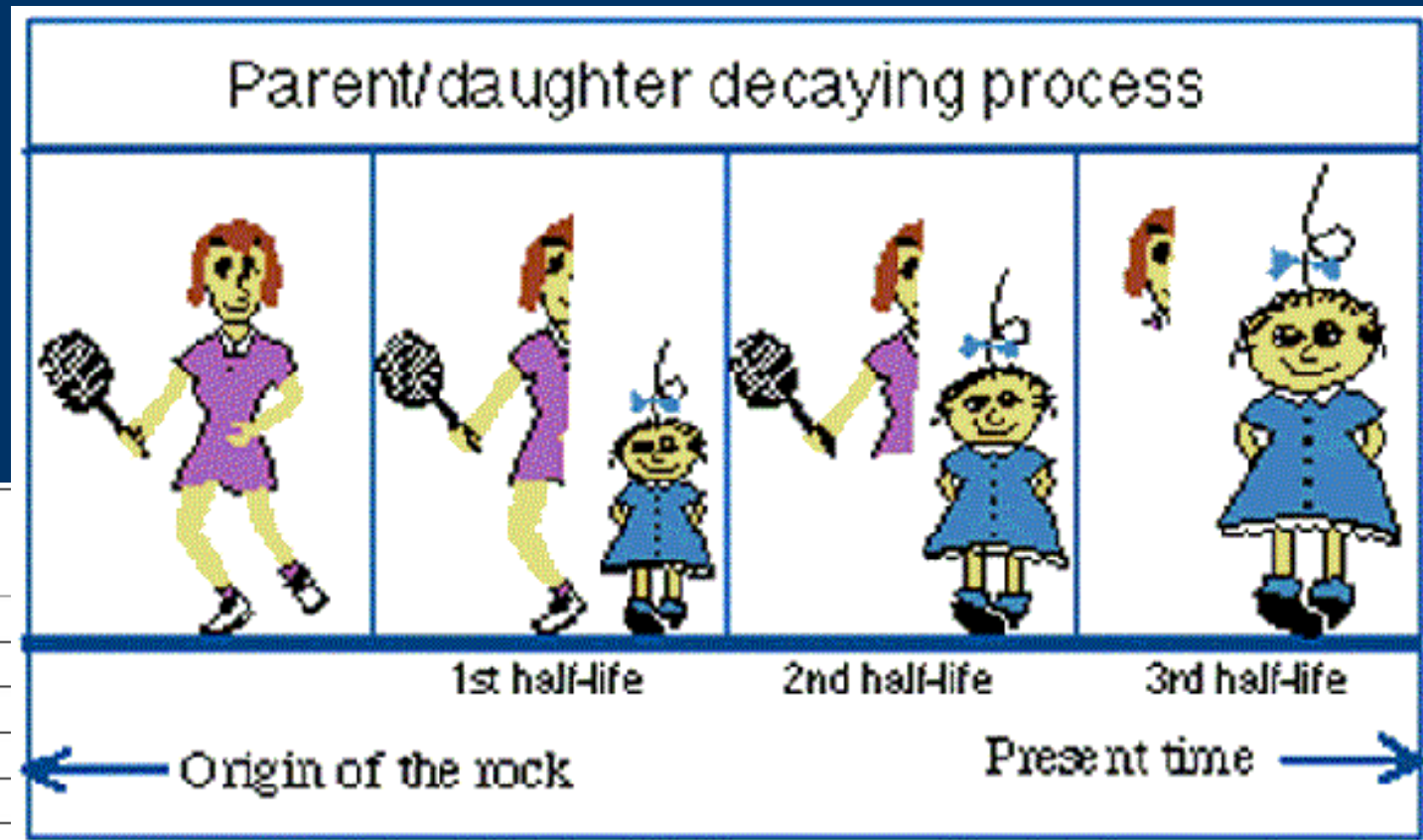




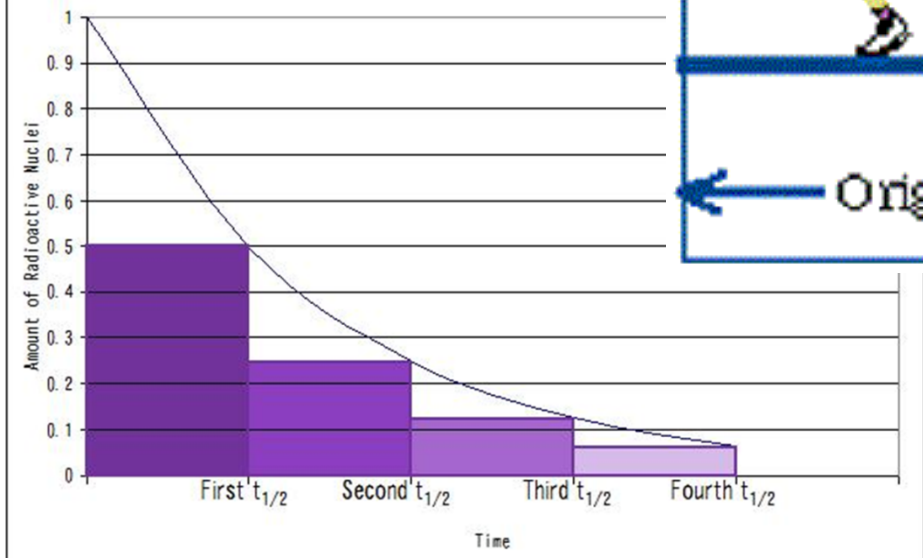
10c. The half-life of a radioactive element is the time it takes for half of the radioactive atoms to decay.



# 11. Comparing the ratio of radioactive atoms to daughter atoms to determine the age of a rock is called....

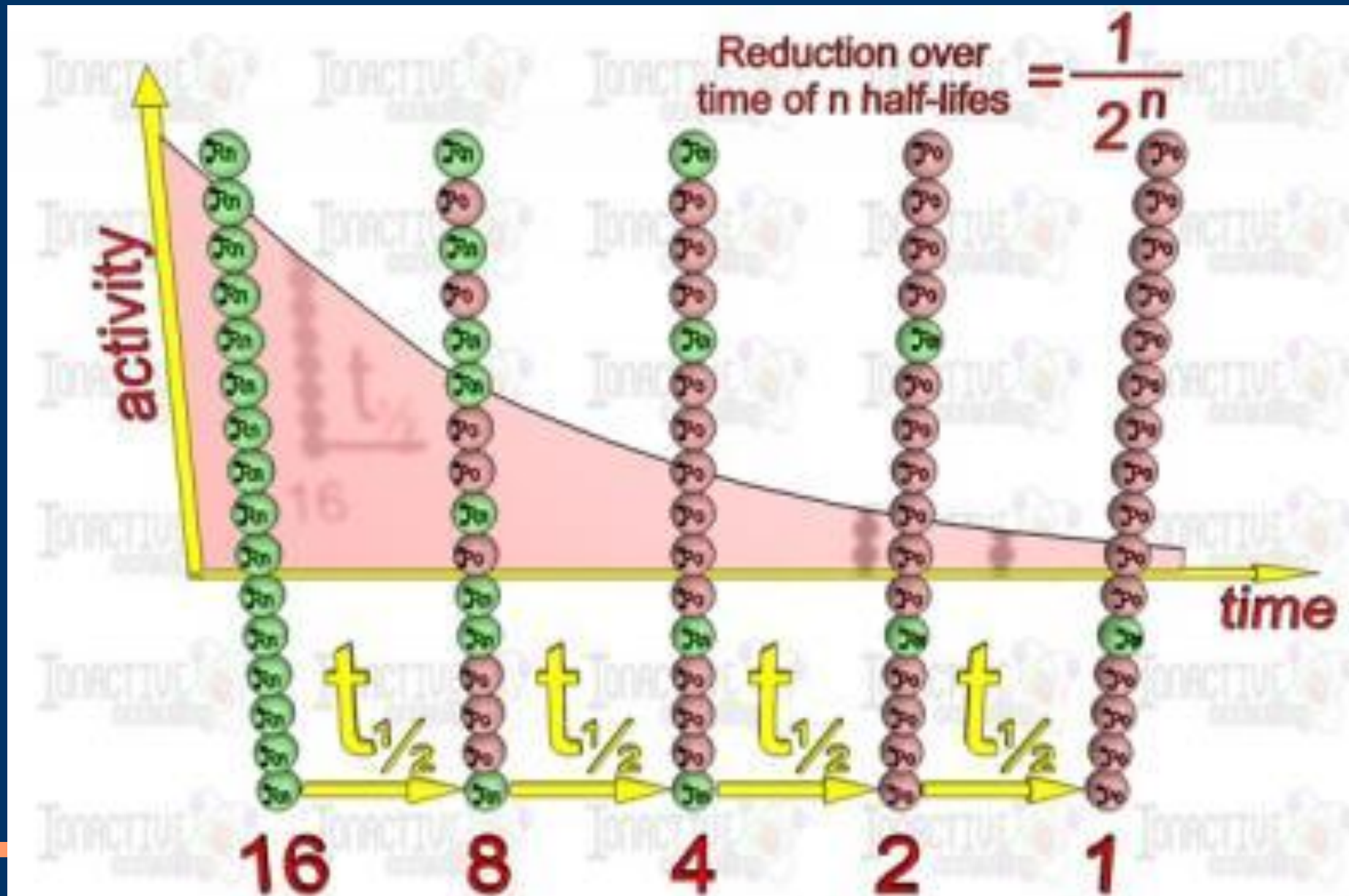


Radioactive Decay





# 13. Radioactive dating may determine a rock's absolute age.



12. Some scientist think life began before 3 billion years ago due to radioactive dating of **stromatolite** fossils.





# Stromatolites





14. Inferred from moon rocks, scientists assume the Earth is 4.6 billion years old.

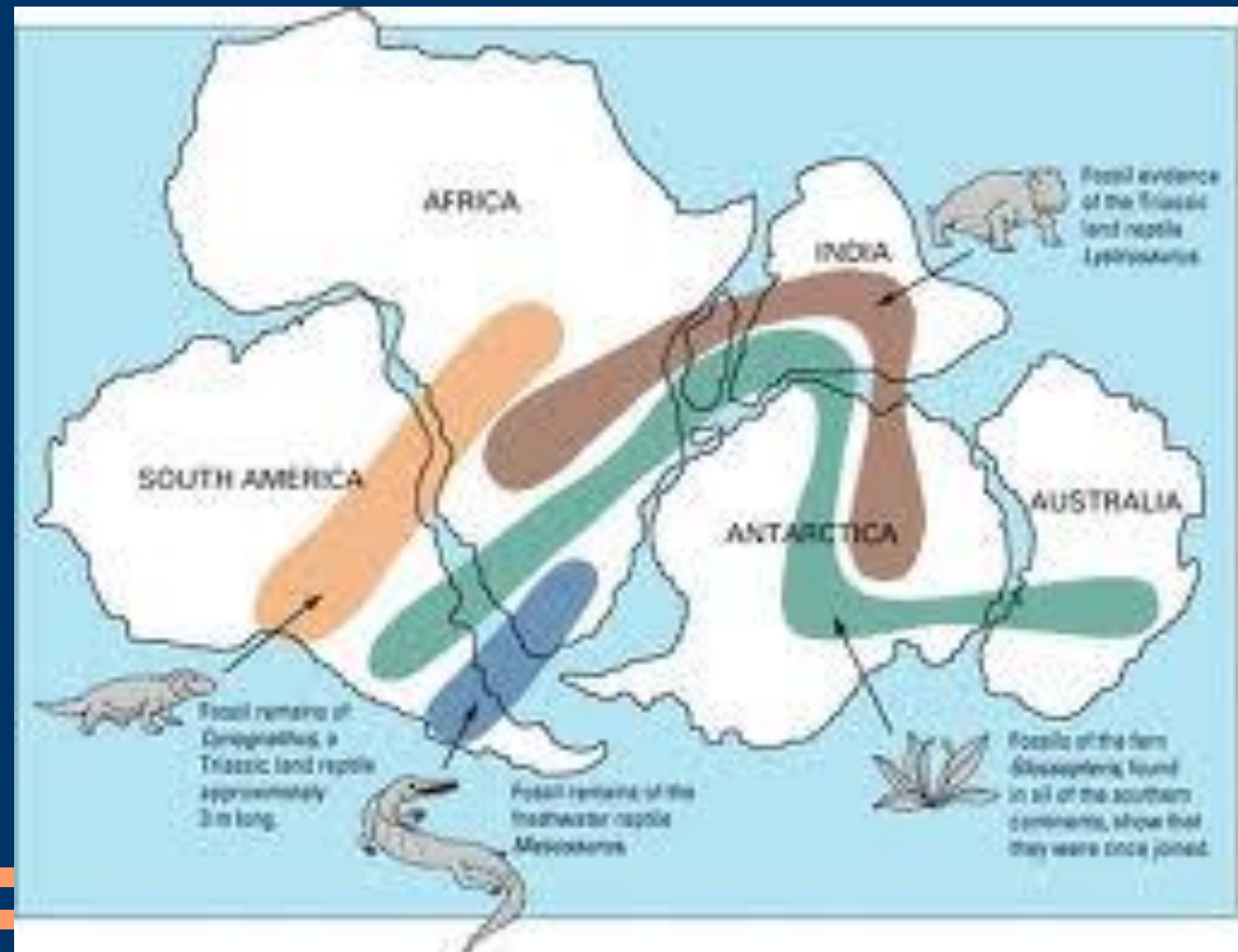


15. The theory that the pieces of the Earth's outer layer are in constant motion is ....



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# Plate tectonics.





# 16. The location of the continents has changed because of the movement of the Earth's plates.



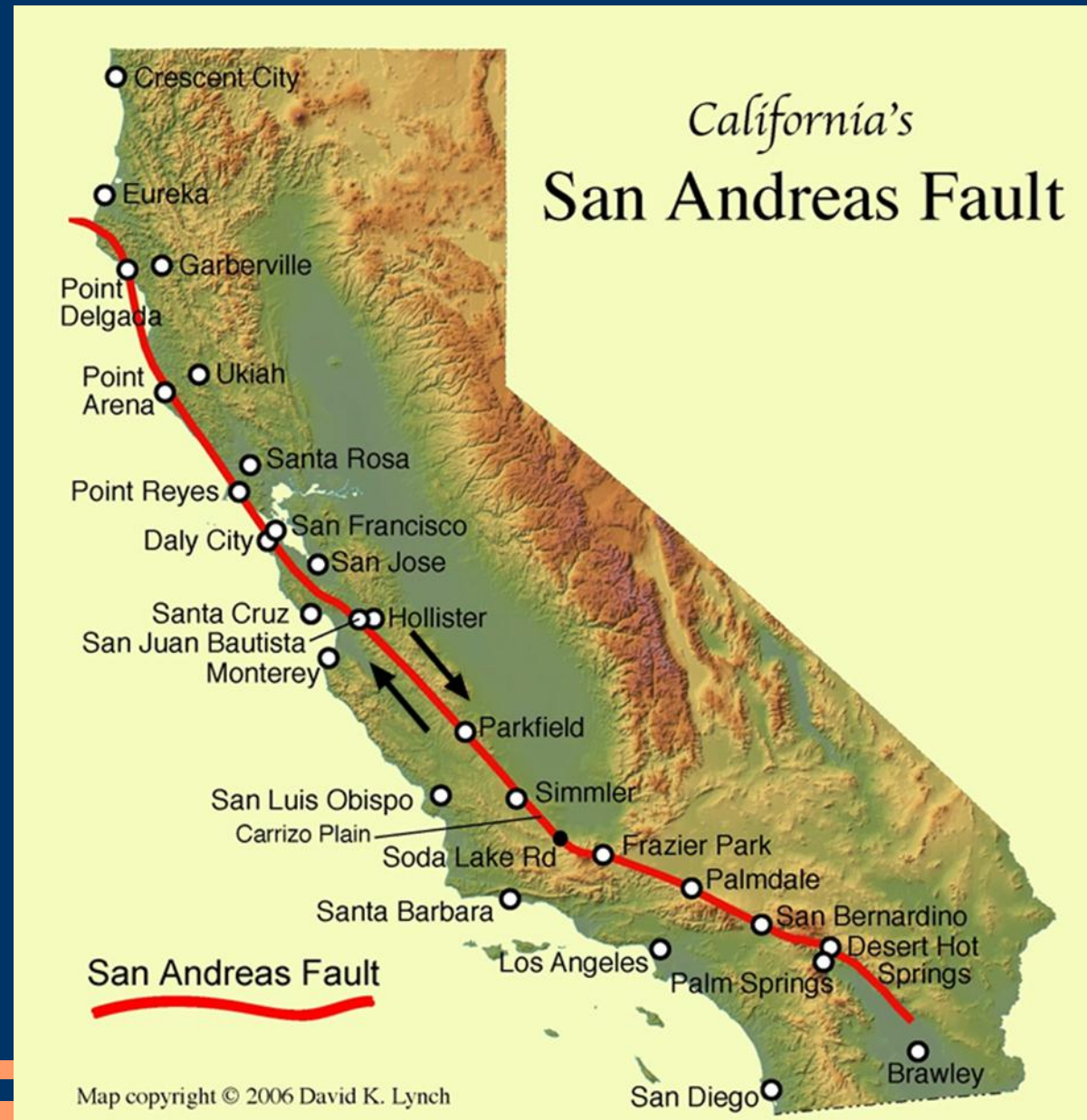
17. Knowing the average speed of the Earth's plates allows inferences to be made about their past and future.

The San Andreas fault moves an average of 2 inches annually, meaning Los Angeles will be next to San Francisco in about 15 million years.

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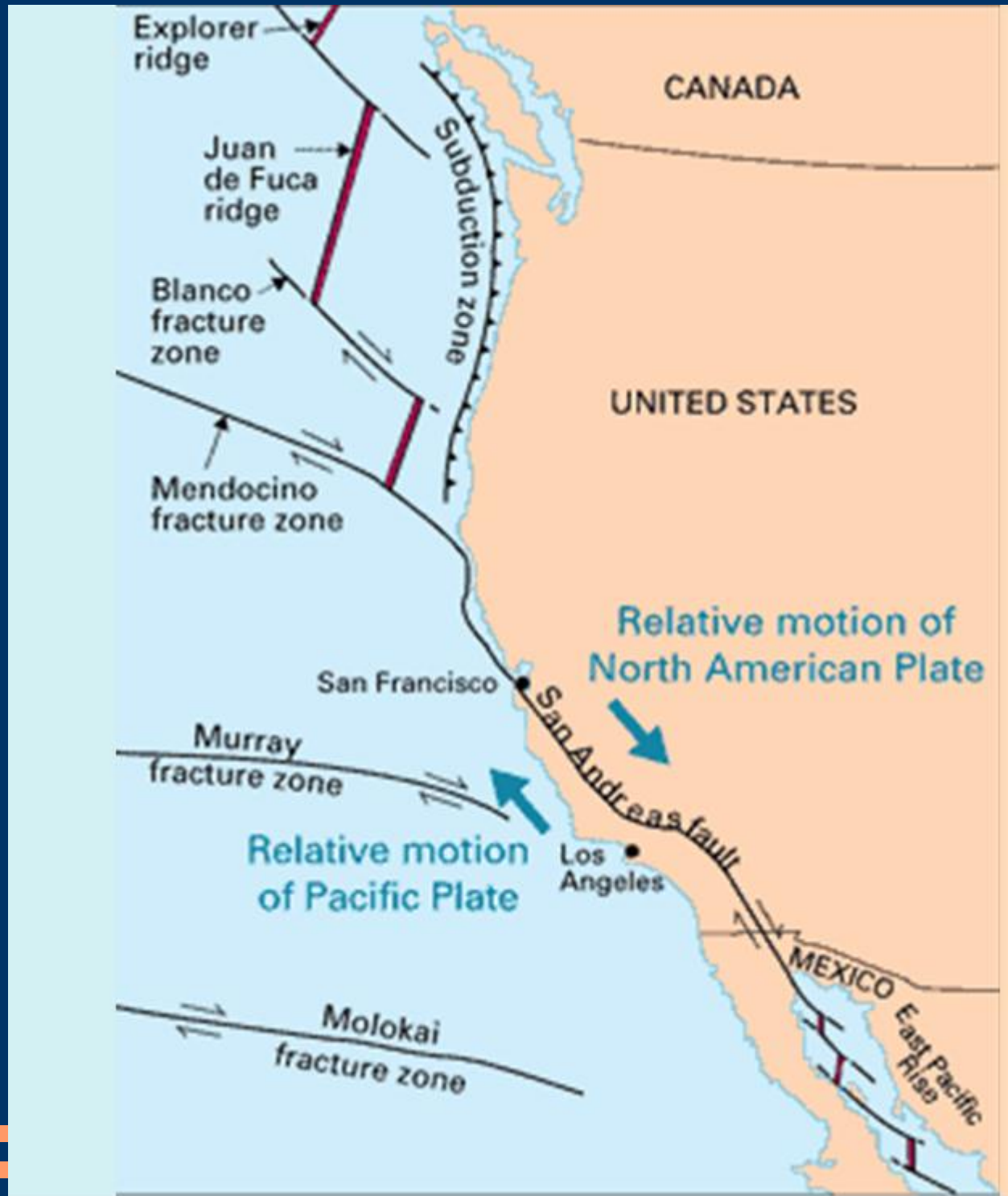
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18. The processes occurring on Earth today are similar to those that occurred in the past. This is called....

The fact that fossilized sand ripples were made by wind and water just like modern sand ripples is an example of uniformitarianism.



19.

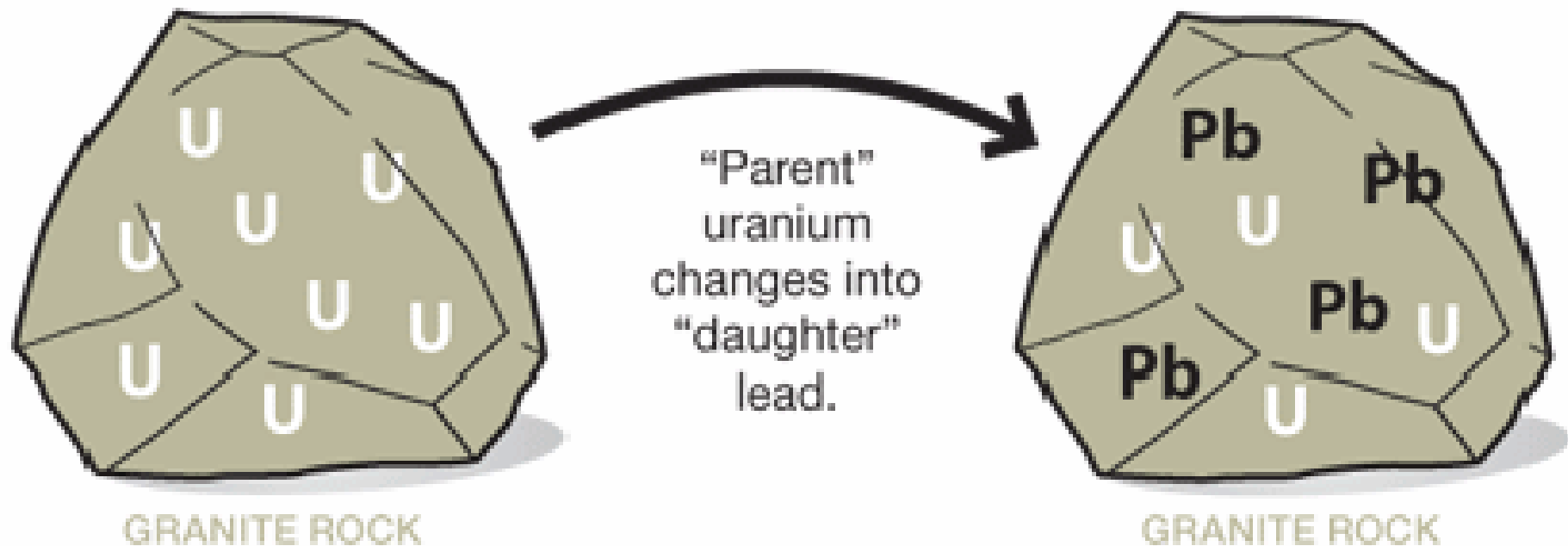
The geologic processes occurring on Earth have made large cumulative effects over long periods of time.



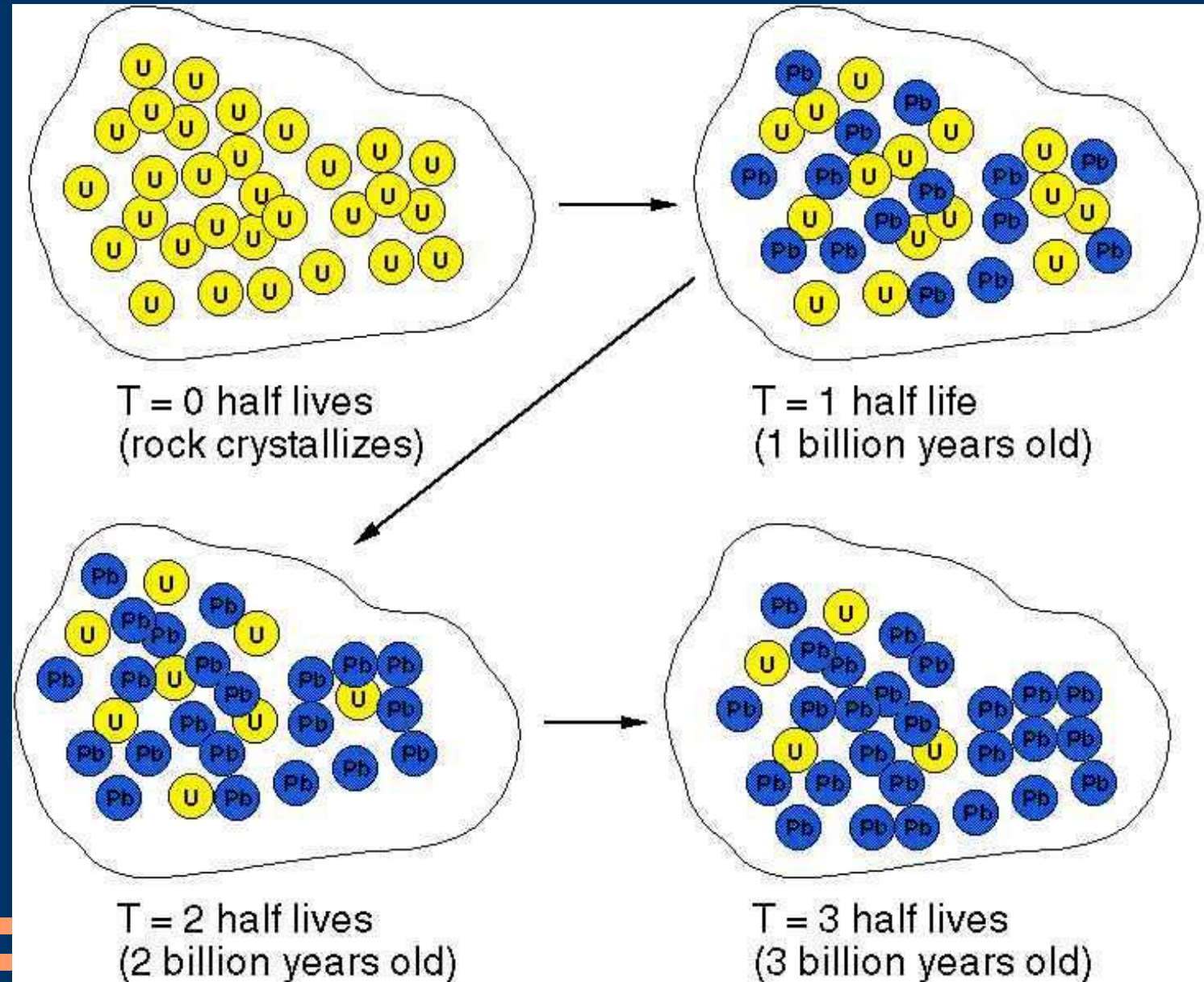


#### 4. During the process of radioactive decay, the atoms of one element breakdown to form atoms of another element.

Unstable atoms, such as uranium (*U*), eventually change into stable atoms, such as lead (*Pb*). The original version is called a parent atom (or isotope), and the new version is called a daughter atom.



5. The half-life of a radioactive element is the time it takes for half of the radioactive atoms to decay.



# Stromatolites

